

*The Element of* **Possibility**<sup>™</sup>

# Alcoa Corporation

**Investor Presentation**

September 2017



## Cautionary Statement regarding Forward-Looking Statements

This presentation contains statements that relate to future events and expectations and as such constitute forward-looking statements within the meaning of the Private Securities Litigation Reform Act of 1995. Forward-looking statements include those containing such words as “anticipates,” “believes,” “could,” “estimates,” “expects,” “forecasts,” “goal,” “intends,” “may,” “outlook,” “plans,” “projects,” “seeks,” “sees,” “should,” “targets,” “will,” “would,” or other words of similar meaning. All statements by Alcoa Corporation that reflect expectations, assumptions or projections about the future, other than statements of historical fact, are forward-looking statements, including, without limitation, forecasts concerning global demand growth for bauxite, alumina, and aluminum, and supply/demand balances; statements, projections or forecasts of future or targeted financial results or operating performance; and statements about strategies, outlook, business and financial prospects. These statements reflect beliefs and assumptions that are based on Alcoa Corporation’s perception of historical trends, current conditions and expected future developments, as well as other factors that management believes are appropriate in the circumstances. Forward-looking statements are not guarantees of future performance and are subject to known and unknown risks, uncertainties, and changes in circumstances that are difficult to predict. Although Alcoa Corporation believes that the expectations reflected in any forward-looking statements are based on reasonable assumptions, it can give no assurance that these expectations will be attained and it is possible that actual results may differ materially from those indicated by these forward-looking statements due to a variety of risks and uncertainties. Such risks and uncertainties include, but are not limited to: (a) material adverse changes in aluminum industry conditions, including global supply and demand conditions and fluctuations in London Metal Exchange-based prices and premiums, as applicable, for primary aluminum, alumina, and other products, and fluctuations in indexed-based and spot prices for alumina; (b) deterioration in global economic and financial market conditions generally; (c) unfavorable changes in the markets served by Alcoa Corporation; (d) the impact of changes in foreign currency exchange rates on costs and results; (e) increases in energy costs; (f) changes in discount rates or investment returns on pension assets; (g) the inability to achieve the level of revenue growth, cash generation, cost savings, improvement in profitability and margins, fiscal discipline, or strengthening of competitiveness and operations anticipated from restructuring programs and productivity improvement, cash sustainability, technology advancements, and other initiatives; (h) the inability to realize expected benefits, in each case as planned and by targeted completion dates, from acquisitions, divestitures, facility closures, curtailments, restarts, expansions, or joint ventures; (i) political, economic, and regulatory risks in the countries in which Alcoa Corporation operates or sells products; (j) the outcome of contingencies, including legal proceedings, government or regulatory investigations, and environmental remediation; (k) the impact of cyberattacks and potential information technology or data security breaches; and (l) the other risk factors discussed in Item 1A of Alcoa Corporation’s Form 10-K for the fiscal year ended December 31, 2016 and other reports filed by Alcoa Corporation with the U.S. Securities and Exchange Commission. Alcoa Corporation disclaims any obligation to update publicly any forward-looking statements, whether in response to new information, future events or otherwise, except as required by applicable law. Market projections are subject to the risks discussed above and other risks in the market.

*Information contained in the following slides that has previously been presented publicly by Alcoa speaks as of the date it was originally presented as indicated. Alcoa is not updating or affirming any of such information as of today’s date. The provision of this information shall not create any implication that the information has not changed since it was originally presented.*

## Non-GAAP financial measures

This presentation includes unaudited “non-GAAP financial measures” (GAAP means accounting principles generally accepted in the United States of America) as defined in Regulation G under the Securities Exchange Act of 1934. Alcoa Corporation believes that the presentation of non-GAAP financial measures is useful to investors because such measures provide (i) additional information about the operating performance of Alcoa Corporation and (ii) insight on the ability of Alcoa Corporation to meet its financial obligations, by adjusting the most directly comparable GAAP financial measure for the impact of, among others, “special items” as defined by the Company, non-cash items in nature, and/or nonoperating expense or income items. The presentation of non-GAAP financial measures is meant to supplement, and is not intended to be a substitute for and should not be considered in isolation from, the financial measures reported in accordance with GAAP. See the appendix for reconciliations of the non-GAAP financial measures included in this presentation to their most directly comparable GAAP financial measures. Alcoa Corporation has not provided a reconciliation of any forward-looking non-GAAP financial measures to the most directly comparable GAAP financial measures due primarily to the variability and complexity in making accurate forecasts and projections, as not all of the information for a quantitative reconciliation is available to the company without unreasonable effort. References to historical EBITDA herein mean Adjusted EBITDA.

## Glossary of terms

A glossary of abbreviations and defined terms used throughout this presentation can be found in the appendix.

2Q17 Financial Information as  
presented on July 19, 2017 and  
Other Information



# World class, low cost assets well-positioned for the future



## Strategic optionality to maximize profit generation

### Bauxite

- Largest bauxite miner globally with first quartile cost position<sup>1</sup>
- Long-lived assets with low-cost growth opportunities
- Global network strategically located near key markets
- 2Q17 EBITDA margin of 34%



### Alumina

- World's leading alumina producer<sup>1</sup> with first quartile refineries<sup>1</sup>
- Technological leader for cleaner, more efficient production
- Low cost position creates substantial cash flow capability
- 2Q17 EBITDA margin of 20%

### Aluminum

- Top 10 global aluminum producer
- Executing on value-focused strategy
- Making high return investments to improve profitability
- 2Q17 EBITDA margin of 11%

Source for cost curve and business position: CRU and Alcoa analysis.

1. Based on 2016 equity production. Includes operating entities and equity interests that comprise the joint venture known as Alcoa World Alumina and Chemicals (AWAC). 5

# Warrick smelter restart announced on July 11

## Warrick smelter partial restart rationale and overview

### Key information and financial impacts

- Restarting three of five potlines (161 kmt of 269 kmt), first hot metal in January, 2018
- Restart expected to be complete in 2Q18
- Estimate restart expense of \$30 to \$35 million to be incurred in 2H17<sup>1</sup>
- Plan to record an after-tax benefit of ~\$25 million in 3Q17 to reverse closure accruals<sup>1</sup>
- Self-generating all power requirements from on site Warrick power station

### Strategic benefits of an integrated facility

- Increase asset utilization
- Efficient source of molten metal for rolling mill
- Meet future rolling mill volume requirements



1. Special items excluded from Adjusted EBITDA results in 3Q17 and 4Q17.

# Alumina balance outlook improves on higher demand



## Projected 2017 market balances

	Bauxite (3 <sup>rd</sup> -party seaborne)	Alumina (smelter grade)	Aluminum
<b>Outlook</b>	<b>Relative balance</b>	<b>Relative balance</b>	<b>Modest surplus</b>
<b>Supply/Demand Balance, (Mmt)</b>			
<b>Global</b>	<b>0 to 6; stockpile growth</b>	<b>-0.8 to 0; balanced</b>	<b>0.3 to 0.7; surplus</b>
China	-64 to -63; deficit	-0.9 to -0.5; deficit	2.2 to 2.4; surplus
World ex-China	63 to 69; surplus	0.1 to 0.5; surplus	-1.9 to -1.7; deficit
<b>Notes</b>	Chinese stockpile growth: Risks include changes to Malaysian and Indonesian export policies and Chinese ramp up in Guinea	Balances assume Chinese alumina imports of 3.3 Mmt	Demand growth, 2017 vs. 2016 <ul style="list-style-type: none"> <li>• Global = 4.75 to 5.25%</li> <li>• China = 6.5 to 7%</li> <li>• World ex-China = 2.75 to 3.25%</li> </ul>

# Significant curtailment potential to be realized

## Potential primary aluminum supply impacts from Chinese policy-driven curtailments

### Policy initiatives

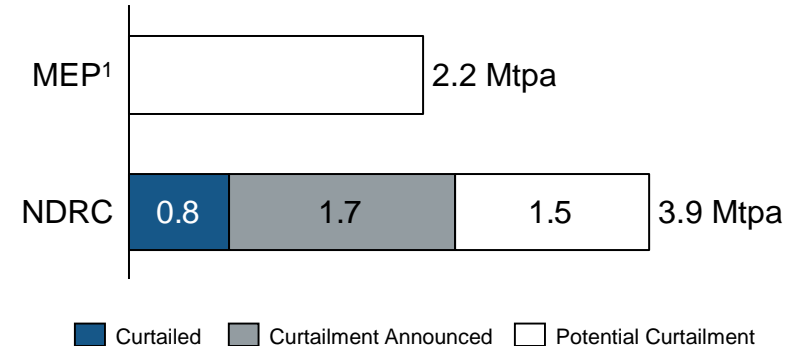
#### Ministry of Environmental Protection (MEP)

- Plan issued in 1Q17
- Potential 30% reduction in 28 cities during winter

#### National Development and Reform Commission (NDRC)

- Plan issued in 2Q17
- Potential curtailments of production operating without licenses

### Potential capacity at risk



**MEP + NDRC Total: 6.1 Mtpa (of approx. 38 Mtpa operating)**



# 2Q17 Financial summary



## Three months ending June 30, 2017, excluding special items

\$M	Bauxite	Alumina	Aluminum <sup>3,4</sup>	Transformation & Legacy Pension / OPEB Costs	Impact from LIFO & Metal Price Lag	Other Corporate Expenses	Alcoa Corporation Total
Total revenue <sup>1</sup>	\$288	\$1,133	\$1,991	\$42	-	\$(595)	\$2,859
Third-party revenue	\$80	\$749	\$1,988	\$42	-	-	\$2,859
Adjusted EBITDA	\$98	\$227	\$221	\$(40)	\$3	\$(26)	\$483
<i>Adjusted EBITDA margin %</i>	<i>34.0%</i>	<i>20.0%</i>	<i>11.1%</i>	-	-	-	<i>16.9%</i>
Depreciation, depletion and amortization	\$19	\$53	\$108	\$2	-	\$8	\$190
Other expenses / (income), net <sup>2</sup>	-	\$6	\$(3)	-	-	\$(15)	\$(12)
Interest expense							\$25
Provision for income taxes							\$92
Adjusted net income							\$188
Net income attributable to noncontrolling interest							\$72
Adjusted net income attributable to Alcoa Corp.							\$116

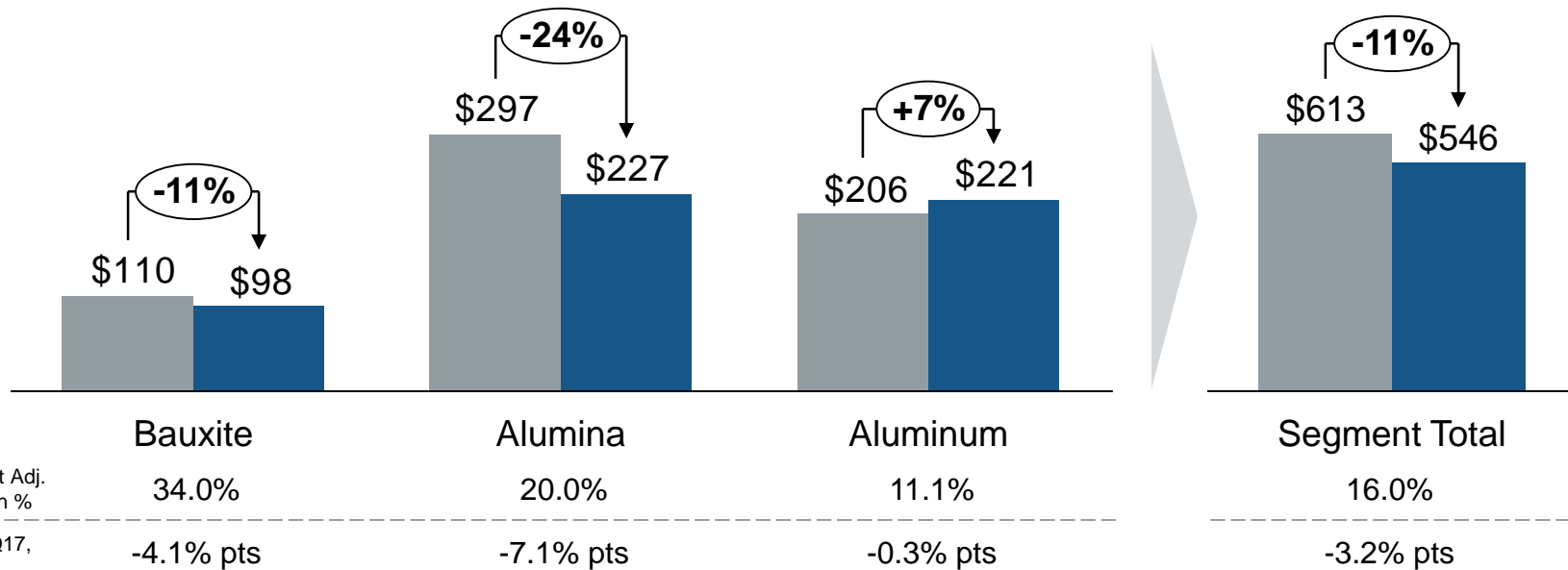
1. Intersegment eliminations included in Other Corporate Expenses.
2. Amounts listed for Alumina and Aluminum include equity loss / (income) from Saudi Arabian joint venture.
3. Flat rolled aluminum shipments, revenue, and adjusted EBITDA were 0.15M mt, \$436M and \$0M, respectively.
4. Third party energy sales volume, revenue and adjusted EBITDA in Brazil were 0.8 GWh, \$42M and \$22M, respectively.

# Segment EBITDAs total \$546 million



## Adjusted EBITDA<sup>1,2</sup> sequential comparison, \$M

■ 1Q17 ■ 2Q17



1. See appendix for adjusted EBITDA reconciliation.
2. Includes non-Ma'aden equity investment income in adjusted EBITDA. See appendix for equity investments summary.

# Non-segment costs improve \$17 million



## 2Q17 Adjusted EBITDA excluding special items<sup>1</sup> breakdown by component, \$M

	1Q17	2Q17	\$ Change
<b>Segment total adjusted EBITDA</b>	<b>\$613</b>	<b>\$546</b>	<b>\$(67)</b>
Transformation & legacy pension/OPEB <sup>2</sup>	(32)	(40)	(8)
Impact of LIFO and metal price lag	(9)	3	12
Other corporate expenses <sup>3</sup>	(39)	(26)	13
<b>Total adjusted EBITDA excl. special items</b>	<b>533</b>	<b>483</b>	<b>(50)</b>
Add back: all pension/OPEB	41	41	0
<b>Total adjusted EBITDAP excl. special items</b>	<b>\$574</b>	<b>\$524</b>	<b>\$(50)</b>

1. See appendix for adjusted EBITDA excluding special items reconciliation.

2. Legacy pension/OPEB costs include those associated with closed locations and allocated to Alcoa Corporation in connection with the separation.

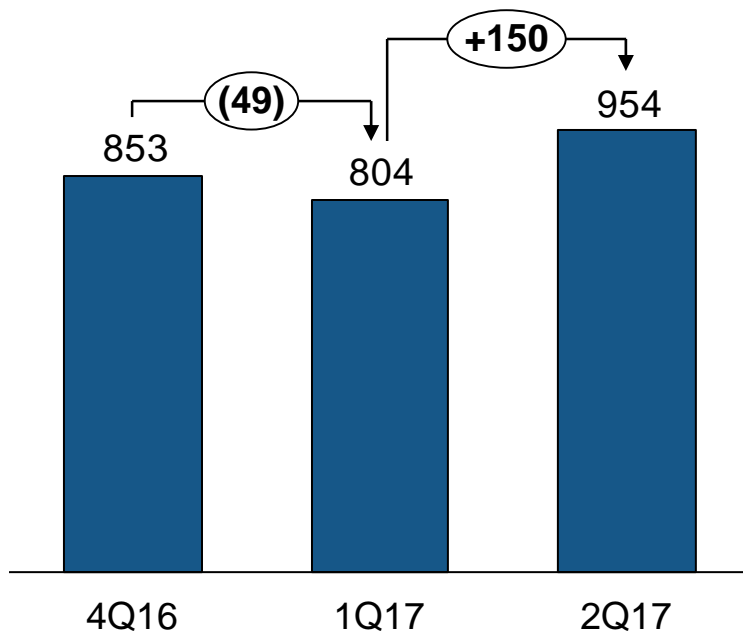
3. Includes SG&A, R&D, intercompany profit elimination and pension/OPEB costs for corporate employees (current and retired).

# Strong cash position of \$954 million



## Sequential quarter cash comparison and cash flows, \$M

### Quarter ending cash balance



### Free cash flow and change in cash

	1Q17	2Q17
Cash Provided From Operations	\$74	\$311
Capital Expenditures	(71)	(88)
<b>Free Cash Flow</b>	<b>\$3</b>	<b>\$223</b>

	1Q17	2Q17
Cash Provided From Operations	\$74	\$311
Cash Used For Financing	(260)	(78)
Cash Provided From (Used For) Investing	131	(87)
Effect of Exchange Rate Changes on Cash	6	4
<b>Net Change in Cash</b>	<b>\$(49)</b>	<b>\$150</b>

# Balance sheet strengthens



## Key financial metrics as of June 30, 2017

- Manage cash position
- Optimize working capital



Cash
<b>\$954M</b>

2Q17 Days Working Capital
<b>18 Days</b>

- Maintain assets
- Invest in return seeking projects



1H17 Capital Expenditures <sup>1</sup>
<b>\$159M</b>

1H17 Return on Capital <sup>2</sup>
<b>6.1%</b>

- Manage leverage
- Focus on pension and OPEB
- S&P BB-, Moody's Ba2, Fitch BB+<sup>3</sup>



Net Debt-to-LTM Adjusted EBITDA
<b>0.3x</b>

Pension & OPEB Net Liability
<b>\$2.9B</b>

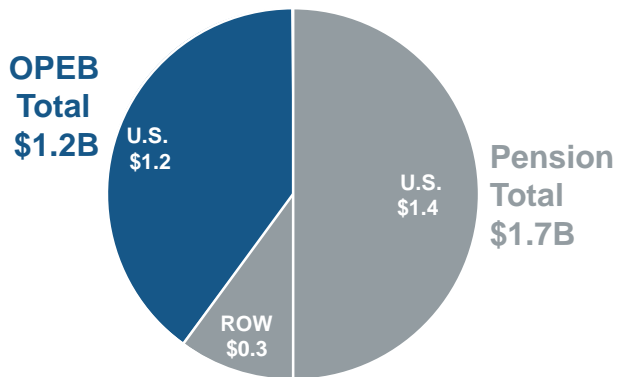
1. \$46M in return seeking capital expenditures and \$113M in sustaining capital expenditures.  
2. Annualized; see appendix for 1H17 Annualized ROC reconciliation and calculation.  
3. Debt ratings for Alcoa Corporation and Alcoa Nederland Holding BV, as of September 10, 2017.

# Pension and OPEB summary



## Pension and OPEB overview

**\$2.9B Net balance sheet liability  
as of June 30, 2017**



### Pension funding status as of December 31, 2016

- U.S. ERISA ~86%
- GAAP Worldwide ~75%

**US pension contributions currently not tax deductible**

## 2017 Impacts, \$M

	Pension	OPEB
Segments	~50%	~15%
Legacy Operations	~15%	~15%
Corporate	~5%	-
<b>Total Expense</b>	<b>~ \$175M</b>	

	Pension	OPEB
Cash Impacts	~50%	~50%
<b>Total Cash</b>	<b>~\$230M</b>	

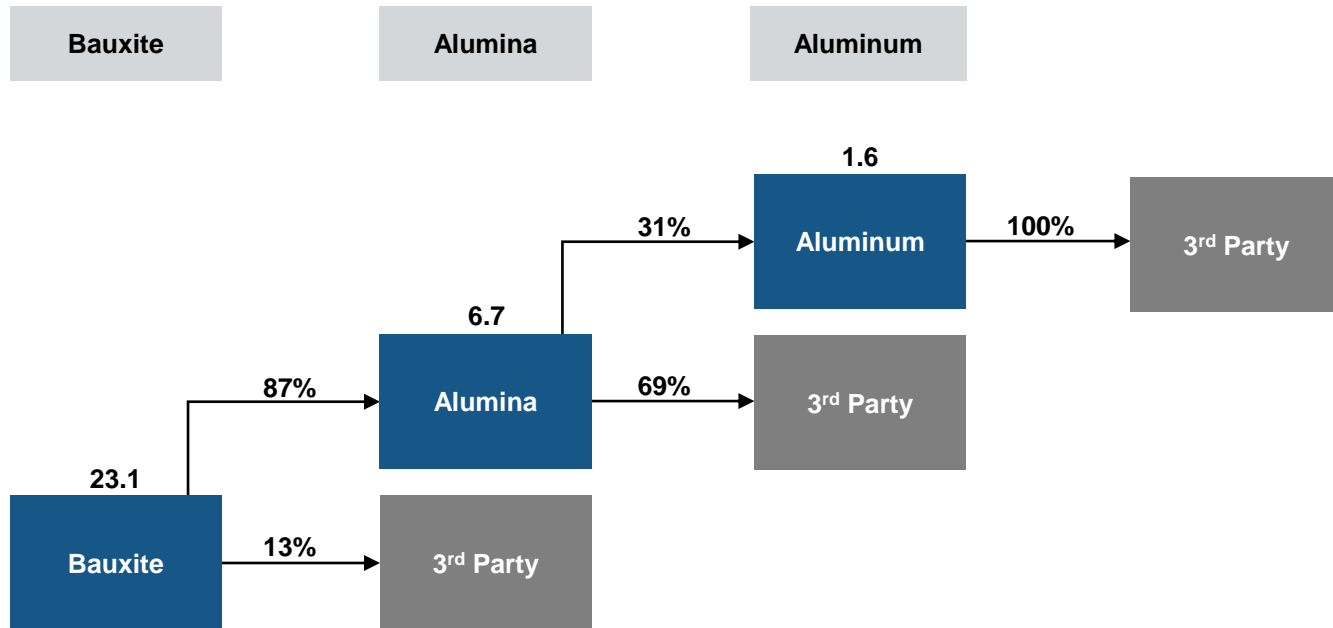
### 2017 Service cost estimates (component of expense)

- Pension: < \$75M (~95%+ in Segments)
- OPEB: < \$10M (~95%+ in Segments)

# Aluminum value chain



## 1H17 Alcoa product shipments by segment, Mmt

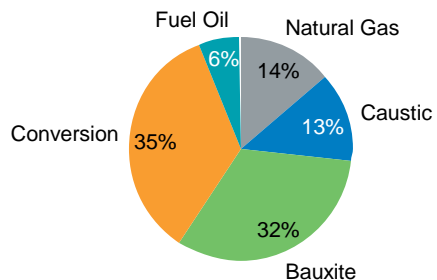


# Composition of alumina and aluminum production costs



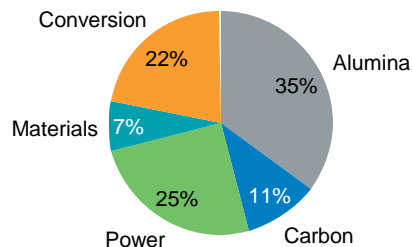
## Alcoa 2Q17 production cash costs

### Alumina refining



Input Cost	Inventory Flow	Pricing Convention	Estimated Annual Cost Sensitivity
Fuel Oil	1 - 2 Months	Prior Month	\$3M per \$1/bbl
Natural Gas <sup>1</sup>	N/A	N/A	N/A
Caustic Soda	3 - 6 Months	Spot & Semi-annual	\$9M per \$10/dmt

### Aluminum smelting



Input Cost	Inventory Flow	Pricing Convention	Estimated Annual Cost Sensitivity
Petroleum Coke	1 - 2 Months	Spot, Quarterly & Semi-annual	\$7M per \$10/mt
Alumina	~2 Months	30-day lag to API	\$43M per \$10/mt
Coal Tar Pitch	1 - 2 Months	Spot, Quarterly & Semi-annual	\$1.5M per \$10/mt

1. Natural gas information related to Point Comfort will no longer apply as we have curtailed the plant. Australia is priced on a rolling 16 quarter average.



# 2017 Business sensitivities



## Estimated annual EBITDA sensitivities

*\$ in millions*

Segment	LME + \$100/mt	API + \$10/mt	Midwest + \$100/mt	Europe + \$100/mt	Japan + \$100/mt	AUD + 0.01 USD/AUD	BRL + 0.10 BRL/USD	CAD + 0.01 CAD/USD	EUR + 0.01 USD/EUR	ISK + 10 ISK/USD	NOK + 0.10 NOK/USD
Bauxite						(3)	4				
Alumina	11	110				(16)	5		(1)		
Aluminum	215	(41)	105	104	23	(1)	(3)	3	(4)	8	3
Alcoa Corp.	226	69	105	104	23	(20)	6	3	(5)	8	3

## Pricing conventions

Segment	3 <sup>rd</sup> -Party Revenue	Primary aluminum % of 2017 shipments	Regional premiums
Bauxite	<ul style="list-style-type: none"> <li>Negotiated prices</li> </ul>	~50%	Midwest
Alumina	<ul style="list-style-type: none"> <li>~85% of third-party smelter grade alumina priced on API/Spot</li> <li>API pricing follows 30-day lag; LME pricing follows 60-day lag</li> </ul>	~40%	Rotterdam Duty Paid
Aluminum	<ul style="list-style-type: none"> <li>LME + Regional Premium + Product Premium</li> <li>Primary aluminum 15-day lag; flat rolled aluminum 30-day lag</li> <li>Brazilian hydroelectric sales at market prices</li> </ul>	~10%	CIF Japan

# Capacity closed, sold and curtailed



## Smelting and Refining capacity information as of June 30, 2017

### Smelting capacity

#### Closed / Sold since December 2007

Facility	Year	kmt
Baie Comeau	2008	53
Eastalco	2010	195
Badin	2010	60
Tennessee	2011	215
Rockdale	2011	76
Baie Comeau	2013	105
Fusina	2013	44
Massena East	2013	41
Massena East	2014	84
Point Henry	2014	190
Portovesme	2014	150
Mt. Holly (sale)	2014	115
Poços de Caldas	2015	96
Warrick <sup>1</sup>	2016	269
<b>Total</b>		<b>1,693</b>

#### Curtailed

Facility	Year	kmt
Intalco	2007	49
Portland	2008	30
Rockdale	2008	191
Avilés	2012	32
La Coruña	2012	24
São Luís	2013	97
São Luís	2014	97
São Luís	2015	74
Wenatchee	2015	184
<b>Total</b>		<b>778</b>

### Refining capacity

#### Closed / Sold since December 2007

Facility	Year	kmt
Jamalco (sale)	2014	779
Suralco	2016	2,207
<b>Total</b>		<b>2,986</b>

#### Curtailed

Facility	Year	kmt
Point Comfort	2008	295
Point Comfort	2015	375
Point Comfort	2016	1,635
<b>Total</b>		<b>2,305</b>

1. On July 11, 2017, announced restart of 161 kmt to be completed in the second quarter of 2018, and curtailment of remaining 108 kmt of capacity.

# 2017 Progress and outlook



## FY17 Key metrics

Adjusted EBITDA excl. special items		
	1H17 Actual	FY17 Outlook
<b>Adjusted EBITDA excl. special items</b>	\$1.0B	\$2.1B – \$2.2B <sup>1</sup>

Shipments		
	1H17 Actual	FY17 Outlook
<b>Bauxite (Mdmmt)</b>	23.1	47.5 – 48.5
<b>Alumina (Mmt)</b>	6.7	13.8 – 13.9
<b>Aluminum<sup>2</sup> (Mmt)</b>	1.6	3.2 – 3.4

Financial metrics			
		1H17 Actual	FY17 Outlook
INCOME STATEMENT IMPACTS	Transformation & legacy pension/OPEB	\$72M	~ \$150M
	Other corporate expenses <sup>3</sup>	\$65M	~ \$150M
	Depreciation, depletion and amortization	\$369M	~ \$750M
	Interest	\$51M	~ \$110M
	Operational tax rate <sup>4</sup>	34.1%	Varies
	Net income of noncontrolling interest	\$146M	40% of AWAC NI
CASH FLOW IMPACTS	Pension/OPEB	\$100M	~\$230M
	Return-seeking capital expenditures <sup>5</sup>	\$46M	~ \$150M
	Sustaining capital expenditures <sup>5</sup>	\$113M	< \$300M
	DOJ / SEC payments (January) <sup>6</sup>	\$74M	\$74M
	Environmental and ARO payments <sup>7</sup>	\$49M	\$120M – \$140M

Outlook as of July 19, 2017.

1. Based on actual results for 1H17; outlook for 2H17 at \$1,900 LME, \$305 API, and updated regional premiums and foreign currencies.
2. Includes volume tolled through Tennessee.
3. Does not include Transformation & legacy pension / OPEB and Impact of LIFO and metal price lag.
4. Varies with jurisdictional profitability.
5. AWAC portion of FY17 Outlook: ~55% of return-seeking capital expenditures, and ~45% of sustaining capital expenditures.
6. Reflects payment made in January 2017. Remaining obligation of \$74 million to be paid in January 2018.
7. Environmental payments made against remediation reserve balance of \$317M (at June 30, 2017). Carrying value of AROs as of June 30, 2017 was \$728M.

# Appendix & Reconciliations



# Equity investments summary



Investee	Country	Nature of Investment <sup>(4)</sup>	Ownership Interest	Carrying Value	P&L Impact
Ma'aden Smelting Company <sup>(1)</sup>	Saudi Arabia	Aluminum smelter	25.1%		
Ma'aden Bauxite and Alumina Company <sup>(1)</sup>	Saudi Arabia	Bauxite mine and Alumina refinery	25.1% <sup>(5)</sup>		
Ma'aden Rolling Company <sup>(1)</sup>	Saudi Arabia	Rolling mill	25.1%		
<b>Subtotal Ma'aden</b>				<b>\$877M</b>	<b>Other Expenses / (Income)</b>
Halco Mining, Inc. <sup>(2)</sup>	Guinea	Bauxite mine	45% <sup>(5)</sup>		
Energetica Barra Grande S.A.	Brazil	Hydroelectric generation facility	42.18%		
Mineração Rio do Norte S.A.	Brazil	Bauxite mine	18.2% <sup>(5)</sup>		
Pechiney Reynolds Quebec, Inc. <sup>(3)</sup>	Canada	Aluminum smelter	50%		
Consortio Serra do Facão	Brazil	Hydroelectric generation facility	34.97%		
Manicouagan Power Limited Partnership	Canada	Hydroelectric generation facility	40%		
<b>Subtotal other</b>				<b>\$501M</b>	<b>Revenue, COGS</b>
<b>Total equity investments</b>				<b>\$1,378M</b>	

Source: Alcoa Corporation 2016 Annual Report, Quarterly Report for period ended June 30, 2017. Carrying value as of June 30, 2017.

- Alcoa Corporation has an investment in a joint venture related to the ownership and operation of an integrated aluminum complex (bauxite mine, alumina refinery, aluminum smelter, and rolling mill) in Saudi Arabia. The joint venture is owned 74.9% by the Saudi Arabian Mining Company (known as "Ma'aden") and 25.1% by Alcoa Corporation.
- Halco Mining, Inc. owns 100% of Boké Investment Company, which owns 51% of Compagnie des Bauxites de Guinée.
- Pechiney Reynolds Quebec, Inc. owns a 50.1% interest in the Bécancour smelter in Quebec, Canada thereby entitling Alcoa Corporation to a 25.05% interest in the smelter. Through two wholly-owned Canadian subsidiaries, Alcoa Corporation also owns 49.9% of the Bécancour smelter.
- Each of the investees either owns the facility listed or has an ownership interest in an entity that owns the facility listed.
- A portion or all of each of these ownership interests are held by wholly-owned subsidiaries that are part of AWAC.

# Adjusted EBITDA reconciliation



<i>\$M</i>	2Q16	1Q17	2Q17	LTM
<b>Net (loss) income attributable to Alcoa Corporation</b>	<b>(\$55)</b>	<b>\$225</b>	<b>\$75</b>	<b>\$165</b>
Add:				
Net (loss) income attributable to noncontrolling interest	43	83	63	162
Provision for income taxes	68	110	99	307
Other expenses / (income), net	(23)	(100)	6	(199)
Interest expense	66	26	25	164
Restructuring and other charges	8	10	12	248
Depreciation, depletion and amortization	178	179	190	732
<b>Adjusted EBITDA<sup>1</sup></b>	<b>285</b>	<b>533</b>	<b>470</b>	<b>1,579</b>
Special items before tax and noncontrolling interest	25	-	13	56
<b>Adjusted EBITDA excl. special items</b>	<b>\$310</b>	<b>\$533</b>	<b>\$483</b>	<b>\$1,635</b>

1. Alcoa Corporation's definition of Adjusted EBITDA is net margin plus an add-back for depreciation, depletion, and amortization. Net margin is equivalent to Sales minus the following items: Cost of goods sold; Selling, general administrative, and other expenses; Research and development expenses; and Provision for depreciation, depletion, and amortization. Adjusted EBITDA is a non-GAAP financial measure. Management believes that this measure is meaningful to investors because Adjusted EBITDA provides additional information with respect to Alcoa Corporation's operating performance and the Company's ability to meet its financial obligations. The Adjusted EBITDA presented may not be comparable to similarly titled measures of other companies.

# Free Cash Flow reconciliation



<i>\$M</i>	<b>2Q16</b>	<b>1Q17</b>	<b>2Q17</b>
Cash from operations	(\$82)	\$74	\$311
Capital expenditures	(86)	(71)	(88)
Free cash flow <sup>1</sup>	(\$168)	\$3	\$223

1. Free Cash Flow is a non-GAAP financial measure. Management believes that this measure is meaningful to investors because management reviews cash flows generated from operations after taking into consideration capital expenditures, which are both considered necessary to maintain and expand Alcoa Corporation's asset base, and expected to generate future cash flows from operations. It is important to note that Free Cash Flow does not represent the residual cash flow available for discretionary expenditures since other non-discretionary expenditures, such as mandatory debt service requirements, are not deducted from the measure.

# Net Debt reconciliation



<i>\$M</i>	<b>2Q17</b>
Short-term borrowings	\$4
Long-term debt due within one year	19
Long-term debt, less amount due within one year	1,418
Total debt	1,441
Less: Cash and cash equivalents	954
Net debt <sup>1</sup>	\$487

1. Net debt is a non-GAAP financial measure. Management believes that this measure is meaningful to investors because management assesses Alcoa Corporation's leverage position after considering available cash that could be used to repay outstanding debt.



# Days Working Capital



<i>\$M</i>	<b>1Q17</b>	<b>2Q17</b>
Receivables from customers	\$708	\$789
Add: Inventories	1,294	1,287
Less: Accounts payable, trade	1,434	1,508
Working Capital	\$568	\$568
Revenue	\$2,655	\$2,859
Number of Days in the Quarter	90	91
Days Working Capital <sup>1</sup>	19	18

1. Days Working Capital = Working Capital divided by (Revenue / number of days in the quarter).

# 1H17 Annualized ROC



## Reconciliation and calculation information

<i>\$M</i>	<b>1H17</b>
<i>Numerator:</i>	
Net income attributable to Alcoa Corporation	300
Add: Net income attributable to non-controlling interest	146
Add: Provision for income taxes	209
<b>Profit Before Taxes (PBT)</b>	<b>655</b>
Add: Interest expense	51
Less: Interest income	5
Add: Special items <sup>1</sup>	(71)
<b>ROC Earnings Before Taxes</b>	<b>630</b>
<b>ROC Earnings Before Taxes multiplied by Two<sup>2</sup></b>	<b>1,260</b>
<b>ROC Earnings After Fixed Tax Rate of 35%</b>	<b>819</b>
<i>Denominator<sup>3</sup>:</i>	
Total Assets	17,003
Less: Cash, cash equivalents, restricted cash and short-term investments	896
Less: Current Liabilities	2,616
Add: Long term debt in current year and short-term borrowings	23
<b>Average Capital Base<sup>3</sup></b>	<b>13,514</b>
<b>ROC</b>	<b>6.1%</b>

$$\text{ROC \%} = \frac{(\text{PBT} + \text{Net Interest}^4 + \text{Special Items}) \times \text{Two}^2 \times (1 - \text{Fixed Tax Rate}^5)}{(\text{Assets} - \text{Cash} - \text{Current Liabilities} + \text{Short Term Debt})} \times 100$$

$$\text{ROC \%} = \frac{((\$655 + \$46 - \$71) \times 2) \times (1 - 0.35)}{(\$17,003 - \$896 - \$2,616 + \$23)} \times 100 = 6.1\%$$

1. Special items are before taxes and non-controlling interest.
2. Annualized for comparability.
3. All denominator items calculated using the average of the two completed quarters' ending balances.
4. Interest income + interest expense.
5. Fixed tax rate of 35%.

# 2016 Baseline ROC for Long-Term Incentive Plan (LTIP)



## Reconciliation and calculation information

<i>\$M</i>	FY 16
<i>Numerator:</i>	
Net loss attributable to Alcoa Corporation	(400)
Add: Net income attributable to non-controlling interest	54
Add: Provision for income taxes	184
<b>Profit Before Taxes (PBT)</b>	<b>(162)</b>
Add: Interest expense	243
Less: Interest income	6
Add: Special items <sup>1</sup>	245
<b>ROC Earnings Before Taxes</b>	<b>320</b>
<b>ROC Earnings After Fixed Tax Rate of 35%</b>	<b>208</b>
<i>Denominator<sup>2</sup>:</i>	
Total Assets	16,390
Less: Cash, cash equivalents, restricted cash and short-term investments	450
Less: Current Liabilities	2,338
Add: Long term debt in current year and short-term borrowings	21
<b>Average Capital Base<sup>2</sup></b>	<b>13,623</b>
<b>ROC</b>	<b>1.5%</b>

$$\text{ROC \%} = \frac{(\text{PBT} + \text{Net Interest}^3 + \text{Special Items}) \times (1 - \text{Fixed Tax Rate}^4)}{(\text{Assets} - \text{Cash} - \text{Current Liabilities} + \text{Short Term Debt})} \times 100$$

$$\text{ROC \%} = \frac{(-\$162 + \$237 + \$245) \times (1 - 0.35)}{(\$16,390 - \$450 - \$2,338 + \$21)} \times 100 = 1.5\%$$

LTIP achievement will be measured as 2019 results compared to a 2016 baseline, and normalized for commodity prices and foreign currency exchange fluctuations

1. Special items are before taxes and non-controlling interest.
2. All denominator items calculated using the quarterly ending balances in 2016.
3. Interest income + interest expense.
4. Fixed tax rate of 35%.

## Abbreviations listed in alphabetical order

Abbreviation	Description
% pts	Percentage points
1H##	Six months ending June 30
1Q##	Three months ending March 31
2H##	Six months ending December 31
2Q##	Three months ending June 30
3Q##	Three months ending September 30
4Q##	Three months ending December 31
Adj.	Adjusted
API	Alumina Price Index
Approx.	Approximately
ARO	Asset retirement obligations
AUD	Australian dollar
AWAC	Alcoa World Alumina and Chemicals
B	Billion
bbl	Barrel
BRL	Brazilian real
CAD	Canadian dollar
CIF	Cost, insurance and freight
COGS	Cost of goods sold
dmt	Dry metric ton
DOJ	Department of Justice
DWC	Days working capital
EBITDA	Earnings before interest, taxes, depreciation and amortization
EBITDAP	Adjusted EBITDA excluding special items and all pension/OPEB expenses
EPS	Earnings per share
ERISA	Employee Retirement Income Security Act of 1974
EUR	Euro
EV	Enterprise value

Abbreviation	Description
Excl.	Excluding
FY##	Twelve months ending December 31
GAAP	Accounting principles generally accepted in the United States of America
ISK	Icelandic Krona
kg	Kilogram
kmt	Thousand metric tons
LIFO	Last in first out method of inventory accounting
LME	London Metal Exchange
LTIP	Long-term incentive plan
LTM	Last twelve months
M	Million
Mdmt	Million dry metric tons
Mmt	Million metric tons
mt	Metric ton
Mtpa	Million tonnes per annum
N/A	Not applicable
NA	North America
NI	Net income
NOK	Norwegian Krone
OPEB	Other postretirement employee benefits
PBT	Profit before taxes
R&D	Research and development
ROC	Return on capital
ROW	Rest of world
SEC	Securities and Exchange Commission
SG&A	Selling, general administrative and other
U.S.	United States of America
USD	United States dollar

*The Element of **Possibility***<sup>™</sup>

